E-SERIES TOP AND SIDE ENTRY MIXERS

The Sharpe E-Series worm gear drive meets low headroom requirements without sacrificing performance. Efficient “high pressure angle” gearing provides extremely quiet operation and high shock-load capacity. The hollow quill gearbox design uses oversize tapered roller bearings for long overhung shafts, and requires no flange coupling for assembly.

Compact Right Angle Drive:

• Heat and shock loading is isolated between the motor and gearbox
• Drive housing is corrosion resistant cast iron
• Wetted parts are SS316 standard
• Carbon steel, exotic alloys, or coatings are also available

Various Shaft Seals:

• Choose among vapor lip seals, low and high pressure stuffing glands, and many mechanical seal designs
• Side entry units include a tank shut-off system to repack the gland or change the mechanical seal without draining the tank
• Premium mechanical seal design includes a radial load bearing integral to the seal housing to limit shaft vibration and extend seal life (split seals are also available)
• Seal lubricators are optional, mounted, plumbed, and tested at our factory for trouble-free start-up at your plant

Large Impeller Selection:

• Many different types of impellers are available, including axial flow, radial flow, and Sharpe’s exclusive energy efficient Hyflo impellers
• Small diameter impellers are normally furnished in a sturdy, one-piece construction
• Exclusive split-hub design for larger applications, allows infinite position adjustment on the shaft, and guarantees easy removal even after years of service
E-Series worm gear advantages

1. The E-Series worm gear drive can deliver a much higher speed reduction (lower output speed) than comparable single reduction helical gearboxes. Operating at a slower speed offers several advantages.
   - More flow or mixing at less horsepower than mixers running at 350 or 420 rpm
   - Larger diameter shafts operate well below the first critical shaft speed and are much more stable than those turning faster, above the first critical speed
   - Larger impeller diameters, turning slower, are more effective in higher viscosity batches
   - Longer shafts are possible for mixing in taller tanks

2. Oversize Timkin tapered roller bearings handle heavy mixer loads and are designed for over 100,000 L-10 hours bearing life.

3. E-Series gearboxes can withstand momentary overloads as great as 300%.

4. Hollow quill gearbox design means shafts normally do not require in-tank shaft couplings.

5. Compact right angle drive fits in tight locations.

6. Heavy duty cast iron housing is more corrosion resistant than aluminium housings.

7. E-Series worm drives are extremely quiet, usually below 76-80 decibels.

8. Sharpe Mixers isolates the motor with a flexible coupling, increasing bearing and motor life.

9. Sharpe Mixers use standard frame c-face motors for better availability.